

Eric di Luccio, Ph.D.

Contact Information

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Career objective: Tenured faculty in a leading research university

Positions

- 01/2010 - present **Assistant professor** (tenure-track) for **applied biosciences and structural biology**
Kyungpook National University, South Korea
 - Research: My laboratory is populated with one postdoctoral researcher, one graduate student and 8 undergraduate students.
 - Teaching: I teach both undergraduate and graduate courses. Topics: biochemistry, genetic & protein engineering and structural biology & bioinformatics.
- 06/2008 - 10/2009 **Post-doctoral researcher and Lecturer in structural biology**
University of California at Davis (UC Davis), USA (Genome centre, computer science Dept.)
- 11/2003 – 05/2008 **Post-doctoral researcher in molecular and cellular biology & structural biology**
University of California at Davis (UC Davis), USA (Molecular and Cellular Biology Dept.)

Expertise and Keywords

- Assistant professor with background in structural biology, biochemistry, genetic and protein engineering, bioinformatics, computational biology, drug-design, epigenetic therapy of cancers.
- I have experience in interdisciplinary scientific collaborations.

Research support

- 2010-2013 **National Research Foundation of Korea (NRF)** - grant 2010-010837 - di Luccio (PI)
“*Epigenetic therapy of cancers on histone lysine methyl transferases (HMTase)*”
- 2011-2012 **Faculty Resources Grant**, Kyungpook National University - di Luccio (PI)
“*Structures and functions of the NSD family of histone lysine methyl transferases.*”
- 2010-2011 **Faculty Resources Grant**, Kyungpook National University - di Luccio (PI)
“*Toward the prevention of strokes and cardiovascular diseases using the PGC-1 α pathway*”

Education

- 10/2003 **Ph.D.** in Structural biology/Neuroscience, minor in Biochemistry. Thesis defended with outstanding honors. University of the Mediterranean Aix-Marseille II, France.
- 06/2000 **Master of Science** in Structural biology/Neuroscience, minor in Biochemistry. Thesis defended with outstanding honors. University of the Mediterranean Aix-Marseille II, France.
- 06/1999 **Bachelor of Science** in Biochemistry and structural biology. University of Limoges, France.

Awards and honors

- **2011** Biophysical Society (USA): 2nd place Art of science Contest during the annual meeting.
- **2009** American Crystallographic Association (USA): 3rd place Art in crystallography prize.
- **2005** 17th West Coast Protein Crystallography Workshop Assilomar, CA – USA: Best Poster prize:
- **2003** PhD Thesis defended and awarded with outstanding honors (highest honorific distinction) – France.
- **2003** First Poster prize: 5th Scientific days of the Jean Roche research Institut Marseille - France
- **2002** International Travel Fellowship from the Groupe Francais des Peptides et des Protéines (GFPP)
- **2001 - 2003** 3 years Ph.D. Fellowship awarded by Conseil Régional de Provence-Alpes-Côte d'Azur - France
- **1999** Master's Thesis defended and awarded with honors – France.
- **1999 - 2000** 1 year Master fellowship awarded by Conseil Régional de Provence-Alpes-Côte d'Azur – France

Special achievement

- **2008** **Astronaut selection program**, class of 2009 with the European Space Agency (**ESA**). I was one of the few selectees out of 10,000 applicants. I was selected based on excellence criteria: education, scientific skills, research achievements, airplane pilot license and fitness criteria. I underwent astronaut tests at one of the German Aerospace Center (DLR Germany).
- Federal Aviation Administration (FAA) certified **private pilot** airplane single engine land.

Professional Memberships

- *American Crystallographic Association (ACA)*
- *Biophysical Society*
- *American Association for Cancer Research (AACR) – Active member*
- *International Union of Crystallography (IUCr)*

Personal, Activities and Interests

Birthdate: March 1st, 1974

Citizenship: French

Permanent resident of the United States: Green card for exceptional ability / national interest.

Languages: Bilingual English and French. Few Japanese and Korean.

Married to Masayo Morishita (Japanese), Ph.D. (2002 in Cell biology from Osaka City University, Japan)

Leisure: Avid road cyclist, mountain biker, skier, runner, and surfer. I also enjoy flying single engine airplanes (Cessna 152 & 172), writing novels, and I am a human space flight enthusiast.

Publications (as of September 6th 2011)

- 18- *Structural insights into the regulation and the recognition of epigenetic marks by the SET domain of NSD1.*
Morishita M. & **di Luccio E.**
Biochem. Biophys. Res. Commun. (BBRC) **2011** – Aug 26;412(2):214-9
- 17- *The NSD Family of Histone Lysine Methyltransferases and Cancers*
Morishita M. & **di Luccio E.**
Biochim. Biophys. Acta (BBA) Reviews on Cancer **2011** Jun 6;1816(2):158-163.
- 16- *Nrf2-mediated Induction of Phase 2 Detoxifying Enzymes by Glyceollins Derived from Soybean Exposed to Aspergillus sojae*
Hyo Jung Kim, **Eric di Luccio**, Ah-Ng Tony Kong and Jong-Sang Kim
Biotechnology Journal **2011** May;6(5):525-36
- 15- *A Quality Metric for Homology Modeling: the H-factor.*
di Luccio E & Koehl P.
BMC Bioinformatics **2011** Feb 4;12(1):48. (Highly accessed publication)
- 14- *Effect of Cu²⁺ on the oxidative folding of synthetic maurotoxin in vitro*
Regaya I, Andreotti N, **di Luccio E**, De Waard M, Sabatier JM
J. Biomol. Struct. Dyn. **2008** Aug;26(1):75-82
- 13- *Comprehensive X-ray structural studies of the quinolinate phosphoribosyl transferase (BNA6) from Saccharomyces cerevisiae.*
di Luccio E, Wilson DK
Biochemistry. **2008** Apr 1;47(13):4039-50
- 12- *Structural and kinetic studies of induced fit in xylulose kinase from Escherichia coli.*
di Luccio E, Petschacher B, Voegtli J, Chou HT, Stahlberg H, Nidetzky B, Wilson DK.
J. Mol. Biol. **2007** Jan 19;365(3):783-98 – **Journal Cover**
- 11- *Identification of a novel NADH-specific aldo-keto reductase using sequence and structural homologies*
di Luccio E, Elling RA, Wilson DK.
Biochem. J. **2006** Nov 15;400(1):105-14
- 10- *Molecular modeling and docking simulations of scorpion toxins and related analogs on human SKCa2 and SKCa3 channels.*
Andreotti N, **di Luccio E**, Sampieri F, De Waard M, Sabatier JM.
Peptides. **2005** Jul;26(7):1095-108
- 9- *A maurotoxin with constrained standard disulfide bridging: innovative strategy of chemical synthesis, pharmacology, and docking on K⁺ channels.*
M'Barek S, Lopez-Gonzalez I, Andreotti N, **di Luccio E**, Visan V, Grissmer S, Judge S, El Ayeb M, Darbon H, Rochat H, Sampieri F, Béraud E, Fajloun Z, De Waard M, Sabatier JM.
J. Biol. Chem. **2003** Aug 15;278(33):31095-104
- 8- *Evolution of maurotoxin conformation and blocking efficacy towards Shaker B channels during the course of folding and oxidation in vitro.*
di Luccio E, Matavel A, Opi S, Regaya I, Sandoz G, M'barek S, Carlier E, Estève E, Carrega L, Fajloun Z, Rochat H, Loret E, de Waard M, Sabatier JM.
Biochem J. **2002** Jan 15;361(Pt 2):409-16

- 7- *A recombinant scFv/streptavidin-binding peptide fusion protein for the quantitative determination of the scorpion venom neurotoxin Aahl*
Aubrey N, Devaux C, **di Luccio E**, Goyffon M, Rochat H, Billiald P.
Biol. Chem. **2001** Nov;382(11):1621-8
- 6- *Parameters affecting in vitro oxidation/folding of maurotoxin, a four-disulphide-bridged scorpion toxin.*
di Luccio E, Azulay DO, Regaya I, Fajloun Z, Sandoz G, Mansuelle P, Kharrat R, Fathallah M, Carrega L, Estève E, Rochat H, De Waard M, Sabatier JM.
Biochem. J. **2001** Sep 15;358(Pt 3):681-92.
- 5- *Disulfide bridge reorganization induced by proline mutations in maurotoxin.*
Carlier E, Fajloun Z, Mansuelle P, Fathallah M, Mosbah A, Oughideni R, Sandoz G, **di Luccio E**, Geib S, Regaya I, Brocard J, Rochat H, Darbon H, Devaux C, Sabatier JM, de Waard M.
FEBS Lett. **2001** Feb 2;489(2-3):202-7
- 4- *Maurotoxin versus Pi1/HsTx1 scorpion toxins. Toward new insights in the understanding of their distinct disulfide bridge patterns*
Fajloun Z, Mosbah A, Carlier E, Mansuelle P, Sandoz G, Fathallah M, **di Luccio E**, Devaux C, Rochat, Darbon H, De Waard M, Sabatier JM.
J. Biol. Chem. **2000** Dec 15;275(50):39394-402.
- 3- *Chemical synthesis and characterization of Pi1, a scorpion toxin from Pandinus imperator active on K⁺ channels*
Fajloun Z, Carlier E, Lecomte C, Geib S, **di Luccio E**, Bichet D, Mabrouk K, Rochat H, De Waard M, Sabatier JM.
Eur. J. Biochem. **2000** Aug;267(16):5149-55.
- 2- *Synthesis, 1H NMR structure, and activity of a three-disulfide-bridged maurotoxin analog designed to restore the consensus motif of scorpion toxins.*
Fajloun Z, Ferrat G, Carlier E, Fathallah M, Lecomte C, Sandoz G, **di Luccio E**, Mabrouk K, Legros, Darbon H, Rochat H, Sabatier JM, De Waard M.
J. Biol. Chem. **2000** May 5;275(18):13605-12
- 1- *Chemical synthesis and characterization of maurocalcine, a scorpion toxin that activates Ca²⁺ release channel/ryanodine receptors.*
Fajloun Z, Kharrat R, Chen L, Lecomte C, **di Luccio E**, Bichet D, El Ayeb M, Rochat H, Allen PD, Pessah IN, De Waard M, Sabatier JM.
FEBS Lett. **2000** Mar 10;469(2-3):179-85.